# OVERVIEW OF TCE OCCURRENCE AND REGULATORY TRENDS

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Trichloroethylene (TCE), a common groundwater contaminant, is currently considered to be a carcinogen by some regulatory authorities. Critical analyses of pertinent metabolic, toxicological, and epidemiological data for TCE and metabolites failed to demonstrate a causal correlation between exposure and cancers of the liver, lung, or kidney in humans. Tumors observed in laboratory animals after chronic, high-dose exposures to TCE are likely to have been caused by species-specific mechanisms that (1) are not prevalent in humans and (2) exhibit a threshold for carcinogenicity. Despite the lack of firm evidence of carcinogenicity in humans, the Environmental Protection Agency (EPA), after a prolonged reassessment, appears ready to adopt a very conservative position and classify TCE as "highly likely" to cause cancer in humans. If EPA elects to classify TCE as a carcinogen that exhibits no threshold, cleanup levels are expected to be set in the range of 0.3 to 1 ppb (µg/L). If this becomes the case, the approach towards cleanup must be modified to contain remediation costs while ensuring public safety. A more careful assessment of the future use of aquifers must be undertaken so that costs are not incurred to remove TCE from aquifers that are not likely to be used for drinking water supplies. Well head treatment may be more appropriate for some sites than pump and treat systems.